John Giessner

From: Wiggins, Guy T. [gwiggi1@entergy.com]
Sent: Wednesday, July 16, 2008 5:48 AM
To: MCKINNEY, MICHAEL R; Allen, Thomas W.; Weiss Jr, John J; Gumble, Floyd W; Sicard, Michael D; Nixon, Bart; Lahti, Laurie A.; Fitzgibbon, Dennis J.; Blind, Alan A.
Cc: Schmidt, Richard F.; Woody, Thomas H.; DiLeo, Tyler D.; Griffith, Thomas J
Subject: CR-PLP-2008-03067 for UNSAT Preliminary results on Palisades BADGER Testing

We initiated CR-PLP-2008-03067 late yesterday (text below) to document preliminary results from the first panel tested. Although the traces clearly show that the neutron absorber material is present, it is apparent that not all elevations will meet the acceptance criteria of 90% of the original density that is assumed in the criticality analysis.

We anticipate a Fleet call later today to discuss further. Testing and data analysis will continue for now to evaluate extent of condition.

Discovered date/time:	7/15/2008 4:28:05 PM	**CR Status:**	C
Originated By:	Woody,Thomas H (Eng Systems Reactor Staff PLP)	**Responsible Dept:**	
Operability:	EQUIPMENT OPERABLE	**Classification:**	
Reportability:		**Significance:**	
Affected Systems:		**Affected Equipment:**	

Condition Description:

Preliminary results of BADGER Testing indicate that the South panel of SFP cell Q-6 does not meet the minimal areal density assume the criticality analysis of record. BADGER Testing is being driven by CR-PLP-2007-03105, which documented fuel assembly binding i Spent Fuel Pool racks. The binding, believed to be caused by the swelling of SFP racks and/or degradation of the boron carbide neut absorber has brought into question the condition of the Region I SFP racks (Region II are of different construction) and as a result a corrective action has been generated and a regulatory commitment has been made to test the racks. BADGER Testing is currently be performed to satisfy the corrective action and commitment. To date, 5 panels have been tested. The Q-6 south panel is the only pane preliminary results are available on, but the remaining 5 panels (Q-6 N,E,W and P-7N) will have preliminary data available on 7/16/08 Based on the shapes of the traces obtained for these 5 cells, they are not expected to meet the minimum areal density either. It is imp to note that the criticality analysis for the Region I racks does not credit soluble boron in the SFP, which leaves a large amount of mar the last SFP sample indicated a boron concentration of 2732 ppm. An assessment of the condition of the racks performed under CR-I 2007-03105 CA-3 concluded that a soluble boron concentration in the SFP of 2054 would be required to maintain a K-eff < 0.95 if 10(the B4C material was unaccounted for. A copy of this assessment is attached. The preliminary data for SFP Cell Q-6 has been attach well.

Immediate Action Description:

Discussed with Supervisor, briefed Shift Manager, and generated a condition report.

Suggested Action Description:

Continue BADGER Testing to obtain better understanding of the condition of Region I racks. Discuss options for performing an updat criticality analysis for the Region I SFP racks.

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